

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

HOBBS OCD
JAN 23 2017
RECEIVED

Carlsbad Field Office
OCD Hobbs

SUNDRY NOTICES AND REPORTS ON WELL LEASES
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		7. If Unit or CA/Agreement, Name and/or No. PERRO LOCO 22 B3PA FEDERAL 1H
2. Name of Operator MEWBOURNE OIL COMPANY Contact: JACKIE LATHAN E-Mail: jlathan@mewbourne.com		8. Well Name and No.
3a. Address HOBBS, NM 88241	3b. Phone No. (include area code) Ph: 575-393-5905	9. API Well No. 30-025-43393-00-X1
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 27 T22S R34E NENE 200FNL 500FEL		10. Field and Pool or Exploratory Area OJO CHISO
		11. County or Parish, State LEA COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input checked="" type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

MOC would like to change the 5 1/2" production casing to 7" production casing with a 4 1/2" liner.
Please see attachment for casing specs and cementing details.

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

14. I hereby certify that the foregoing is true and correct.

**Electronic Submission #363668 verified by the BLM Well Information System
For MEWBOURNE OIL COMPANY, sent to the Hobbs
Committed to AFMSS for processing by TEUNGKU KRUENG on 01/12/2017 (17TMK0010SE)**

Name (Printed/Typed) ANDY TAYLOR	Title ENGINEER
Signature (Electronic Submission)	Date 01/12/2017

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By Teungku Muchlis Krueng	Title PETROLEUM ENGINEER	Date
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		
	Office	JAN 12 2017

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

**BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE**

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Mewbourne Oil Company, Perro Loco 22 B3PA Fed #1H
Sec 27, T22S, R34E
SL: 200' FNL & 500' FEL, Sec 27
BHL: 330' FNL & 500' FEL, Sec 22

1. Geologic Formations

TVD of target	11259'	Pilot hole depth	NA
MD at TD:	16208'	Deepest expected fresh water:	100'

Reef

Formation	Depth (TVD) from KB)	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Alluvium	Surface	Water	
Rustler	1740	Water	
Top of Salt	1875	Salt	
Tansill/Base Salt	3350		
Yates	3470	Oil	
Seven Rivers			
Capitan	3975		
Delaware Group	5690	Oil/Gas	
Bone Spring	8500	Oil/Gas	
3 rd Bone Spring	10920	Target Zone	
Wolfcamp		Will Not Penetrate	
Cisco			
Canyon			
Strawn			
Atoka			
Morrow			
Barnett Shale			
Woodford Shale			
Devonian			
Fusselman			
Ellenburger			
Granite Wash			

*H2S, water flows, loss of circulation, abnormal pressures, etc.

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2. Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
	From	To							
17.5"	0	1200	13.375"	48	H40	STC	1.19	2.77	3.64
17.5"	1200	1765	13.375	54.5	J55	STC	1.23	2.97	16.69
12.25"	0	3400	9.625"	36	J55	LTC	1.14	1.99	2.16
12.25"	3400	4350	9.625"	40	J55	LTC	1.14	1.75	5.94
12.25"	4350	5250	9.625"	40	N80	LTC	1.13	2.11	14.66
12.25"	5250	5590	9.625"	40	HCL80	LTC	1.46	1.98	61.54
8.75"	0	11535	7"	26.526	P110	LTC	1.39	1.78	2.17
6.125"	10782	16208	4.5"	13.5	P110	LTC	1.82	2.12	4.61
BLM Minimum Safety Factor <i>per Andy</i>							1.125	1	1.6 Dry 1.8 Wet

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h
 Must have table for contingency casing

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	Y
If yes, does production casing cement tie back a minimum of 50' above the Reef?	Y
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

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3. Cementing Program

Casing	# Sks	Wt. lb/gal	Yld ft ³ /sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	1030	12.5	2.12	11	10	Lead: Class C + 4.0% Bentonite + 0.6% CD-32 + 5% Sodium Chloride +0.25lb/sk Cello-Flake
	200	14.8	1.34	6.3	5	Tail: Class C + 0.005pps Static Free + 1% CaCl ₂ + 0.25 pps CelloFlake + 0.005 gps FP-6L
Inter.	180	12.5	2.12	11	10	1 st Lead: Class C + 4.0% Bentonite + 0.6% CD-32 + 5% Sodium Chloride +0.25lb/sk Cello-Flake
	200	14.8	1.34	6.3	5	1 st Tail: Class C + 0.005pps Static Free + 1% CaCl ₂ + 0.25 pps CelloFlake + 0.005 gps FP-6L
	DV Tool & ECP @ 3925'					
	598	12.5	2.12	11	10	2 nd Lead: Class C + 4.0% Bentonite + 0.6% CD-32 + 5% Sodium Chloride +0.25lb/sk Cello-Flake
	200	14.8	1.32	8	5	2 nd Tail: Class C + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
Prod.	500	12.5	2.12	11	9	Lead: Class C + Gel + Retarder + Defoamer + Extender
	400	15.6	1.18	5.2	10	Tail: Class H + Retarder + Fluid Loss + Defoamer
Liner	220	11.2	2.97	17	16	Class C + Salt + Gel + Fluid Loss + Retarder + Dispersant + Defoamer + Anti-Settling Agent

DV tool depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
Surface	0'	100%
Intermediate	0'	25%
Production	3925'	25%
Liner	10782'	25%

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4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
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BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
12-1/4"	13-5/8"	2M	Annular	X	1250#
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other*		
8-3/4"	13-5/8"	5M	Annular	X	2500#
			Blind Ram	X	
			Pipe Ram	X	
			Double Ram		5000#
			Other*		
6-1/8"	13-5/8"	5M	Annular	X	2500#
			Blind Ram	X	
			Pipe Ram	X	
			Double Ram		5000#
			Other*		

*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

X	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
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Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
N	Are anchors required by manufacturer?
N	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. <ul style="list-style-type: none"> • Provide description here See attached schematic.

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	1765	FW Gel	8.6-8.8	28-34	N/C
1765	5590	Brine*	10.0-10.2	29-34	N/C
5590	10782	Cut Brine	8.5-9.3	28-34	N/C
10782	16208	FW w/polymer	8.5-9.3	28-34	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

*Aerated fluid will be used to drill 12 1/4" hole if circulation is lost.

What will be used to monitor the loss or gain of fluid?	Visual Monitoring
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6. Logging and Testing Procedures

Logging, Coring and Testing.	
X	Will run GR/CNL from KOP to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
	No Logs are planned based on well control or offset log information.
	Drill stem test? If yes, explain
	Coring? If yes, explain

Additional logs planned	Interval
X	GR
	Density
	CBL
	Mud log
	PEX

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7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	5445 psi
Abnormal Temperature	No

Mitigation measure for abnormal conditions. Describe. **Lost circulation material/sweeps/mud scavengers.**

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
	H2S is present
	H2S Plan attached

8. Other facets of operation

Is this a walking operation? If yes, describe.
 Will be pre-setting casing? If yes, describe.

- Attachments
 Directional Plan
 Other, describe

Capitan Reef: Csg Design not restricted for Reef, production cement to cover casing 50 feet above Capitan Reef top.
Lesser Prairie-Chicken.

13 3/8 surface csg in a 17 1/2 inch hole.					Design Factors		SURFACE		
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	Weight	
"A"	48.00	H 40	ST&C	3.52	1.4	0.58	1,200	57,600	
"B"	54.50	J 55	ST&C	15.21	1.36	0.92	620	33,790	
w/8.4#/g mud, 30min Sfc Csg Test psig: 687					Tail Cmt	does not	circ to sfc.	Totals:	1,820 91,390
Comparison of Proposed to Minimum Required Cement Volumes									
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
17 1/2	0.6946	1230	2452	1319	86	8.80	1732	2M	1.56

Burst Frac Gradient(s) for Segment(s) A, B = .15 All > 0.70, OK.

9 5/8 casing inside the 13 3/8					Design Factors		INTERMEDIATE		
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	Weight	
"A"	36.00	J 55	LT&C	2.16	1.68	0.65	3,400	122,400	
"B"	40.00	J 55	LT&C	5.94	1.67	0.73	950	38,000	
w/8.4#/g mud, 30min Sfc Csg Test psig:							Totals:	5,590 210,000	
The cement volume(s) are intended to achieve a top of					0	ft from surface or a		1820	overlap.
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
12 1/4	0.3132	look	0	1876		10.20	2962	3M	0.81
D V Tool(s):					3925	sum of sx		Σ CuFt	Σ%excess
t by stage % :					20	15	1178	2181	16

Burst Frac Gradient(s) for Segment(s): A, B, C, D = 1.04, 0.91, c, d
All > 0.70, OK. Casing needs to be 1/3 full to pass

7 casing inside the 9 5/8					Design Factors		PRODUCTION		
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	Weight	
"A"	26.00	P 110	LT&C	2.37	4.01	1.83	3,208	83,408	
"B"	26.00	P 110	LT&C	1.96	1.62	1.83	7,574	196,924	
"C"	26.00	P 110	LT&C	55.88	1.14	1.83	753	19,578	
"D"							0	0	
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,500							Totals:	11,535 299,910	
B would be:					3.31	1.19	if it were a vertical wellbore.		
No Pilot Hole Planned					MTD 11535	Max VTD 11259	Csg VD 11259	Curve KOP 10781	Dogleg° 90
The cement volume(s) are intended to achieve a top of					3925	ft from surface or a		1665	overlap.
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
8 3/4	0.1503	900	1532	1175	30	9.30	2962	3M	0.55

Casing needs to be 1/3 full to pass

4 1/2 Liner w/top @ 10782					Design Factors		LINER		
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	Weight	
"A"	13.50	P 110	LT&C	2.93	1.75	2.28	753	10,166	
"B"	13.50	P 110	LT&C	2.38	1.96	2.28	4,673	63,086	
w/8.4#/g mud, 30min Sfc Csg Test psig: 2,477							Totals:	5,426 73,251	
A Segment Design Factors would be:					4.61	1.96	if it were a vertical wellbore.		
No Pilot Hole Planned					MTD 16208	Max VTD 11259	Csg VD 11259	Curve KOP 10781	Dogleg° 90
The cement volume(s) are intended to achieve a top of					10782	ft from surface or a		753	overlap.
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
6 1/8	0.0942		0	522		9.30			0.56

Capitan Reef est top XXXX.

All previous COA still **apply** except the following:

The 7 inch production casing must be kept liquid filled while running into hole to meet minimum BLM requirements for collapse.

1. The minimum required fill of cement behind the 7 inch production casing is:

- Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

Formation below the 7" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

2. The minimum required fill of cement behind the 4-1/2 inch production liner is:

- Cement should tie-back to the top of the liner. Operator shall provide method of verification.